

**REMARKS****INTRODUCTION**

In accordance with the foregoing, claims 5, 11, and 14 have been amended. No new matter has been submitted.

Claims 1-14 are pending and under consideration.

**REJECTION FOR CLAIM 13**

It is respectfully noted that the outstanding Office Action has not addressed independent claim 13. Any further Office Actions are respectfully requested to address claim 13.

**REJECTION UNDER 35 USC 112**

Claims 5-6 stand rejected under 35 USC 112, second paragraph, as including indefinite language. In particular, the Office Action has found the term "large value" objectionable. Accordingly, claim 5 has been amended to add additional definition of the claimed "large" feature, particularly changing "large value" to "a larger value than that of a normal single-mode fiber," with the specification providing sufficient support for this added definition.

Withdrawal of this rejection is respectfully requested.

**REJECTION UNDER 35 USC 102**

Claims 1 and 10 stand rejected under 35 USC § 102 as being anticipated by Shake et al., U.S. Patent No. 6,587,242. This rejection is respectfully traversed.

The Office Action indicates that Shake et al. discloses all the claimed features of independent claim 1, and in particular indicates that the claimed "chirp unit generating a frequency chirp in an inputted optical signal composed of a plurality of optical pulses and extending a spectrum of the optical pulse" can be considered equivalent to FIG. 1, element 13, of Shake et al. Applicants respectfully submit that at least this feature is not disclosed by Shake et al.

In Shake et al., the optical pulse broadening means 13 of Fig. 1 broadens an optical pulse waveform, namely with an effect of broadening an optical pulse in the time domain as explained in Shake et al., col. 87, lines 35-48.

Conversely, the claimed chirp unit associated with the present invention, in contrast to this optical pulse broadening means 13 of Shake et al., is concerned with extending a spectrum of an optical pulse, i.e., an extension in the wavelength domain, which does not directly pertain to the time domain.

Broadening an optical pulse in the time domain is not the same as extending a spectrum of an optical pulse with deals with an extension of the wavelength domain. They are not the same.

It is respectfully submitted that Shake et al. fails to disclose or suggest all the claimed features of independent claim 1.

Therefore, for at least the above, it is respectfully requested that this rejection be withdrawn and independent claim 1 be allowed. In addition, for at least similar rationale, it is respectfully submitted that claims depending from independent claim 1 is also in proper condition for allowance.

#### REJECTION UNDER 35 USC 103

Claims 2 and 3 stand rejected under 35 USC § 103 as being obvious over Shake et al., in view of MacDonald et al., U.S. Patent No. 5,519,723; claims 2, 4, 9, and 11 stand rejected under 35 USC § 103 as being obvious over Saito et al., U.S. Patent No. 5,457,559; claim 7 stands rejected under 35 USC § 103 as being obvious over Shake et al., in view of Saito et al. and Evans et al., U.S. Patent No. 5,579,428; claim 8 stands rejected under 35 USC § 103 as being obvious over Shake et al., in view of Saito et al. and Libori et al., U.S. Patent No. 6,792,188; and claims 12 and 14 stand rejected under 35 USC § 103 as being obvious over Shake et al., in view of Mamyshev, U.S. Patent No. 6,141,129. These rejections are respectfully traversed.

It is respectfully submitted that claims 2-14 are at least allowable for the aforementioned deficiency of Shake et al.

Further, the following is briefly noted. Shake describes an OTDM transmission system, and MacDonald et al. has been apparently cited because it may describe a chirp unit having a third order non-linear optical medium, Saito et al. has been apparently cited because it may describe a chirp unit having a third order non-linear fiber, Evans et al. has been apparently cited because it may describe a dispersion flattened fiber, Libori et al. has been apparently cited because it may describe a holey fiber, and Mamyshev has been apparently cited because it may describe an optical medium having multiple pass bands.

Regardless, it is respectfully submitted that none of MacDonald et al., Saito et al., Evans et al., Libori et al., and/or Mamyshev disclose or suggest the aforementioned deficiency of Shake et al.

#### CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the

Serial No. 10/014,367

application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: June 9, 2005

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S&H Form: (02/05)